

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3	Shen NEAR Che-Kun NEAR James	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/10/06 13:35
L2	52	zeta ADJ globin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/10/06 13:39
L3	9	HS-40 ADJ enhancer	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/10/06 13:36
L7	9	HS-40 enhancer	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2005/10/06 13:38
L8	6	TCTGAGTCA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/10/06 13:38
L9	14	zeta globin promoter	US-PGPUB; USPAT; EPO; JPO; DERWENT	WITH	ON	2005/10/06 13:40
L10	26	Shen NEAR james	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/10/06 13:42
L16	14	(US-20020108134-\$ or US-20020133838-\$ or US-20020148000-\$ or US-20030233669-\$).did. or (US-4822821-\$ or US-5827693-\$ or US-5919997-\$ or US-6172039-\$ or US-6303845-\$ or US-6451334-\$).did. or (US-6022738-\$ or US-6303845-\$ or US-20020108134-\$ or US-20020133838-\$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2005/10/06 13:43

=> d his

(FILE 'HOME' ENTERED AT 13:49:20 ON 06 OCT 2005)

FILE 'MEDLINE, CANCERLIT, AGRICOLA, CAPLUS, SCISEARCH' ENTERED AT
13:50:13 ON 06 OCT 2005

L1 90 S (HS-40 ENHANCER) OR (HS(2W)ENHANCER)
L2 35 DUP REM L1 (55 DUPLICATES REMOVED)
L3 17 S L2 AND PY<=1998
L4 7 S L3 AND MUT?
L5 15 S L2 AND MUT?
L6 8 S L5 NOT L4
L7 8 DUP REM L6 (0 DUPLICATES REMOVED)
E SHEN CHE-KUN?/AU
L10 46 S E1
L11 3 S L10 AND L1
L12 3 DUP REM L11 (0 DUPLICATES REMOVED)

=> d an ti so au ab pi l12 1-3

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:1004738 CAPLUS

DN 140:1576

TI A strong variant of the **HS-40 enhancer** and
its use in expression vectors for transgenic animals

SO U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S. Ser. No. 961,563.
CODEN: USXXCO

IN **Shen, Che-kun James**

AB A substitution mutant of the **HS-40 enhancer**
of ζ -globin gene promoter, a 350-400 bp enhancer element located
about 40 kb upstream of ζ -globin gene is used in expression vectors
for high level expression of foreign genes in transgenic animals. **HS-40**
is the major cis-acting regulatory element responsible for the
developmental stage- and erythroid lineage-specific expression of the human
 α -like globin genes, the embryonic ζ and the adult
 $\alpha 2/\alpha 1$. A single nucleotide change in the 3'NF-E2/AP1 element
of the human **HS-40 enhancer**, unlike the wild
type **HS-40 enhancer**, confers
position-independent and copy number-dependent expression on a transgene.
The mutation also relieves the developmental regulation of expression from
the promoter of the ζ -globin gene. In addition, the single nucleotide
change allows expression of the gene in the cells of an adult mouse, an
effect not seen for the wild type **HS-40**
enhancer. The transgenic animal may include pig, rat, cow,
rabbit, goat, guinea pig, prairie baboon, squirrel, monkey, chimpanzee,
bird, frog, toad, chicken, turkey and sheep. The generation of transgenic
mice expressing a growth hormone gene in erythroblasts using the
HS-40(mt) enhancer and the ζ -globin promoter is
demonstrated. Serum growth hormone levels of up to 6,490 ng/mL were
obtained.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002148000	A1	20021010	US 2001-14220	20011109
	US 6303845	B1	20011016	US 2000-536094	20000324
	US 2002133838	A1	20020919	US 2001-961563	20010920

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:757858 CAPLUS

DN 135:314417

TI Vectors containing mutated **HS-40 enhancer** of
 ζ -globin gene promoter and its regulation of transgene expression in
transgenic mice

SO U.S., 7 pp., Division of U.S. Ser. No. 205,015, abandoned.
CODEN: USXXAM

IN **Shen, Che-Kun James**

AB The invention relates to a mutated **HS-40**
enhancer of ζ -globin gene promoter, a 350-400 bp enhancer
element located about 40 kb upstream of ζ -globin gene. **HS-40** is the
major cis-acting regulatory element responsible for the developmental

stage-and erythroid lineage-specific expression of the human α -like globin genes, the embryonic ζ and the adult $\alpha 2/\alpha 1$. The invention is based on the discovery that a single nucleotide change in the 3'NF-E2/AP1 element of the human **HS-40 enhancer**, unlike the wild type **HS-40 enhancer**, confers position-independent and copy number-dependent expression on a transgene. In addition, the single nucleotide change allows expression of the gene in the cells of an adult mouse, an effect not seen for the wild type **HS-40 enhancer**. Accordingly, the invention provides a viral expression vector (e.g., a retrovirus) expressing a transgene regulated by (1) a transcriptional start site; (2) a promoter (e.g., a tissue-specific promoter such as ζ -globin promoter) operably linked to the transcriptional start site; and (3) the above mutated **HS-40 enhancer** operably linked to the promoter.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6303845	B1	20011016	US 2000-536094	20000324
	TW 585913	B	20040501	TW 1999-88121251	19991204
	US 2002133838	A1	20020919	US 2001-961563	20010920
	US 2002108134	A1	20020808	US 2001-977432	20011015
	US 2002148000	A1	20021010	US 2001-14220	20011109

Kaushal, Sumesh

From: Kaushal, Sumesh
Sent: Thursday, October 06, 2005 1:47 PM
To: STIC-Biotech/ChemLib
Subject: 10/014220: Interference Search

10/014220: Interference Search

- **SEQ ID NO: 1 DNA 9nt**
- **SEQ ID NO: 2 DNA 147nt**
- **SEQ ID NO: 3 DNA 356nt**

thanks

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